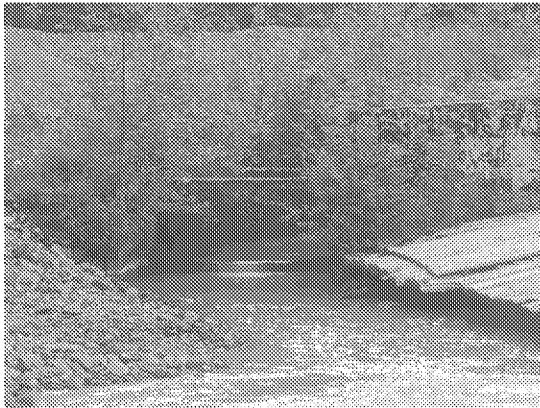


Fish ladder functionality chronology

The following is a timeline of functionality of the fish ladder at the Electron Dam diversion on the Puyallup River. While the fish ladder was not monitored at length for functionality previous to September 22nd, occasional site observations and photos were taken to document the worksite starting on July 15th.

July 15th – 24th: ladder appears or is non-functional. Either water flow is too low for fish attraction, or the ladder was de-watered to allow for cofferdam installation.



July 15th, 2020



July 24th, 2020

July 25th-29th: ladder status unknown. Biologist not available for ladder observation on July 28-29.

July 30th-31st: ladder flow restored, but passage is in question due to high ladder flows (700-730 total river cfs).



July 30th, 2020

August 13th – ladder observation notes indicate no evidence of chinook spawners at the ladder yet. Likely passable.

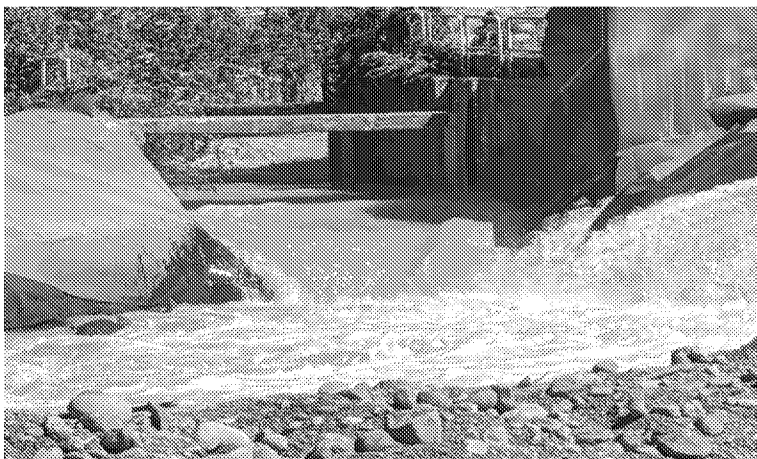
August 17th – Drop from top of ladder falls to the river level begins to become apparent. 775 cfs.



August 17th, 2020

August 19th, 2020 – WDFW visits site, and concerns are brought up about fish passage and whether the ladder is passable by migrating adults (passage questionable). Agreed that ladder adjustment is necessary.

August 27th, 2020 – River at 325 cfs. Fish ladder remains in this condition largely until ladder is adjusted with large rock placed on 10/05/2020.



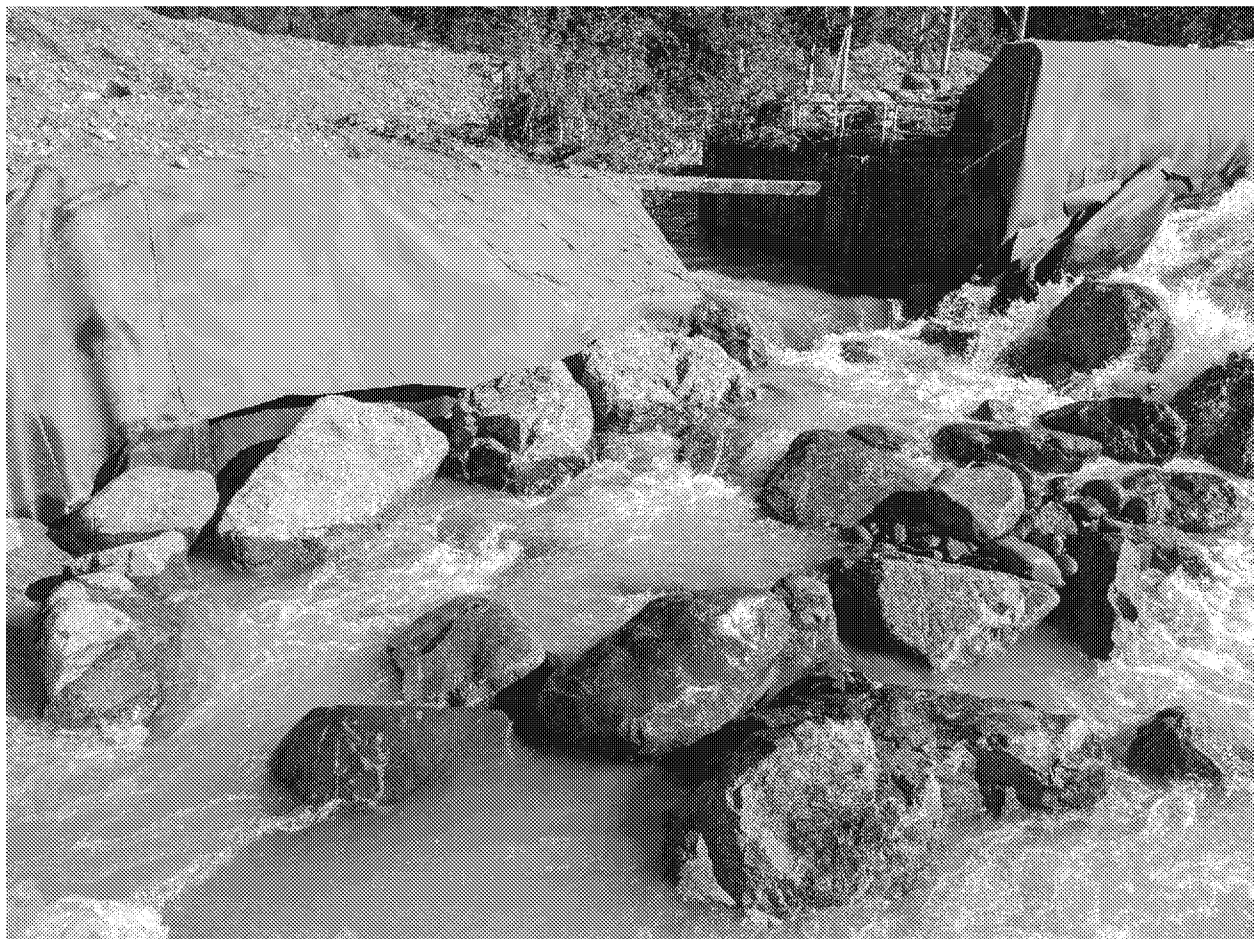
Sept. 14th, 2020 – Ladder is monitored for sign of fish, and there is no evidence of fish attempting to jump into the ladder yet.

September 22nd, 2020 - Dedicated observations of the fish ladder began on September 22nd, with 3 fish sightings at approximately 14:00 and 295 cfs.

Sept. 23rd – Oct. 5th – many confirmed fish sightings and jumps, several confirmed successful attempts into the ladder.



October 5th, 2020 – The fish ladder's lower entrance was adjusted in order to allow fish of all sizes and ages to access the ladder. Adjustments were made by placing two large rock pools just below the ladder to decrease jump height into the lowermost cell. This adjustment was successful.



October 5th, 2020, after adjustment

Oct. 5th, 2020 – Oct. 24th, 2020 – fish ladder retained functionality, and fish sightings dropped off after the 19th.

Oct. 25th – Oct. 26th, 2020 – Fish ladder flow was temporarily suspended to allow fish clearing and cofferdam removal.

Oct. 27th- Oct. 28th, 2020 – Fish ladder flow very low, but enough to provide fresh water flow. Not attractive enough.

Oct. 28th - Current – water is currently flowing out of the ladder at an appropriate rate. Attraction may be an issue, as side channel from the spillway may draw fish away from the ladder flows.

| Date Range | Passable | Unknown/ Questionable | Nonfunctional |
|--|----------|--------------------------|---------------|
| July 15 th – July 24 th | | X | X |
| July 25 th – July 29 th | | X | |
| July 30 th – July 31 st | | X | |
| August 1 st – August 12 th | X | X | |
| August 13 th – Sept. 22 nd | X | X | |
| Sept. 23 rd – Oct. 5 th | X | | |
| October 5 th - 24 th | X | | |
| October 25 th – 26 th | | | X |
| October 27 th -28 th | | | X |
| October 28 th - current | X | | |